

NEW PARASITID MITES FROM NEW GUINEA (ACARINA: PARASITIDAE).

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(Fourteen Text-figures.)

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Genus CELAENOPSOIDES, n. gen.

In both sexes, body pyriform, approximately as wide as long. Dorsal shield entire. Sternal, genital, ventral, and anal plates fused to form a large ventral shield, within which are the genital and anal apertures. Parapodal plates prolonged back almost to the apex of the body. Chelicerae scissors-shaped. Tarsi i without claws or caruncle, but bearing several setae; other tarsi with caruncles but no claws. Legs stout, not unduly long. In the female, two median vulval flaps. Legs of male somewhat heavier than those of the female, and bearing very large, stout spurs. Tarsi of male calcarate.

Parasitic on a vertebrate host.

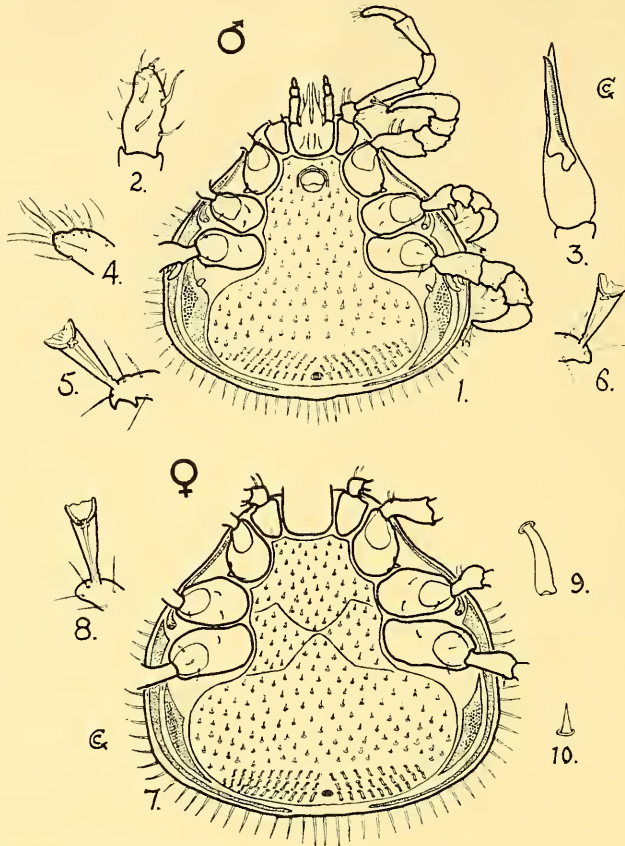
Type species: *Celaenopsoides buloloensis*, n. sp.

CELAENOPSOIDES BULOLOENSIS, n. sp. Figs. 1-10.

Body pyriform. Male: L, 767 μ ; W, 841 μ . Female: L, 875 μ ; W, 958 μ . Colour brown. A single dorsal shield, covering the whole body, plain, without setae. A large ventral shield occupying all the space between the coxae and expanded behind coxae iv to occupy almost the whole of the remainder of the ventral surface. Anus towards the posterior margin of this shield. Male aperture set in the ventral shield opposite the middle of coxae ii; female genital aperture opposite coxae iv, and provided with an anterior and a posterior median flap. Flanking the anus three transverse rows of ribbon-like setae (Fig. 9); the remainder of the ventral shield covered with short, sharp, forward-pointing setae (Fig. 10). Stigmata between coxae iii and iv; peritreme narrow and running forward as far as coxae ii. Parapodal plates produced posteriorly into narrow extensions running around the posterior margin of the ventral shield almost to the midline; the anterior portions, in the region of the stigmata, ornamented with a row of small circular pits. Metapodal plates large, triangular, running back between the ventral shield and the parapodal plates to the level of the anus; ornamented in the middle third with a group of circular pits; in the male very large, the medial angle bearing a blunt spur; in the female not so large, and without any spur. No setae on the accessory plates. A fringe of long, stout, straight, sharp setae projecting stiffly around the posterior margin of the body, reaching as far forward as the stigmata.

Coxae i and ii plain, coxae iii with two small fine setae, and coxae iv with one. Six segments in each leg, but whereas in leg i the second segment is quite separate and distinct, in the other three legs it is flattened back onto the coxa and apparently fused with it. Second segment of leg i bearing four long stout sharp setae; of leg ii, no setae; of leg iii, one short fine seta; and of leg iv, two long stout setae and one short fine one. Remaining four segments of leg i long and slender; of legs ii, iii, and iv, shorter and very stout, those of the male heavier than those of the female. All legs bearing a few fine, fairly long setae on the last four segments. Third segment of leg ii, in both sexes, bearing two stout sharp curved spur-like setae, those of the male proportionately larger than those of the female; third segment of leg iii bearing a long stout spur in the male, two sharp spur-like setae in the female; third segment of leg iv bearing two very stout long spurs, one with a tooth on the convex side, in the male, and three sharp spur-like setae in the female. In both sexes, a curved sharp spur-like seta on each fourth and fifth segment of legs iii and iv. In both sexes, tarsus i bluntly rounded, without claws or caruncle, bearing five long setae and several shorter ones (Fig. 4); other tarsi strongly curved, without claws, but bearing long elaborate caruncles. In the male, tarsi ii with two beak-like projections (Fig. 5), tarsi iii angular,

with two small blunt tubercles (Fig. 6). Tarsi iv in the male, tarsi ii, iii, and iv, in the female, rounded (Fig. 8).



Figs. 1-10.—*Celaenopsoides buloloensis*, n. sp. 1. Venter of male. 2. Terminal segment of palp. 3. Terminal segment of chelicera. 4. Tarsus i of male. 5. Tarsus ii of male. 6. Tarsus iii of male. 7. Venter of female. 8. Tarsus iv of male; ii, iii, and iv of female. 9. Posterior seta from ventral shield. 10. Seta from anterior portion of ventral shield.

Palpi with at least three segments; the terminal segment bluntly rounded, bearing a few long stout setae, one very long and curved; at the apex a small blunt seta arising from a squat cylindrical projection (Fig. 2). Chelicerae with the terminal segment very broad at the base, narrowing abruptly one-third of the way along, then tapering slowly; movable blade armed with a long row of fine corrugations on its inner edge (Fig. 3).

The female carries at least three elliptical ova.

Type host: *Rattus browni* Alston, 1877.

Habitat: Bulolo, Territory of New Guinea, 1940.

This mite was taken on Brown's rat at Bulolo, New Guinea. Following H. G. Vitzthum (1929), it approximates to the *Celaenopsidae*, and following Banks (1915), it resembles the genus *Cuclenopsis* of the family *Parasitidae*, subfamily *Parasitinae*; but it does not truly fit into any of the keys at the writer's disposal, and a new genus has been constructed to accommodate it.

Types and two paratypes in the collection of the School of Public Health and Tropical Medicine, University of Sydney.

GENUS *GENEADOLAEALAPS* Ewing 1929.

A Manual of External Parasites, 184.

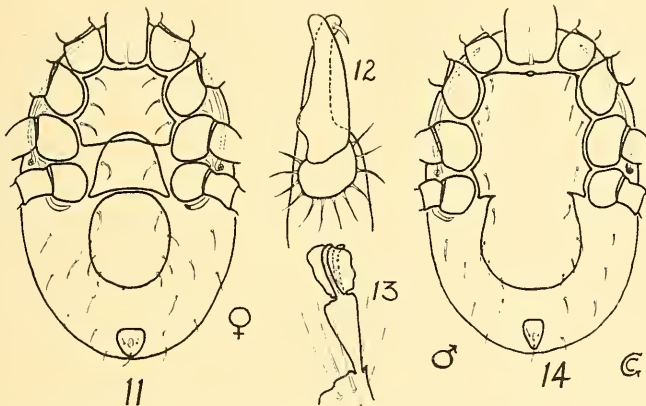
GENEADOLAELAPS SPENCEI, n. sp. Figs. 11-14.

Body oval, widest just behind the midpoint. Colour reddish-brown. Dorsum almost entirely covered by the scutum, which is sparsely clothed by stiff, stout, slightly curved setae. The scutum is plain. There is a small rounded projection of the body anteriorly.

Female: L, 625 μ ; W, 333 μ . Sternal plate opposite coxae ii and iii, concave behind, bearing 3 pairs of setae. Genital plate opposite coxae iv, projecting forward almost to the middle of coxae iii, bearing 1 pair of setae. Ventral plate oval, contiguous with the posterior margin of the genital plate, and with its posterior margin well in front of the anal plate; bearing 4 pairs of setae. Anal plate a rounded triangle, bearing 3 setae. No platelets seen. On the venter a few setae, shorter and more slender than those of the dorsum. Peritreme very narrow, extending forwards as far as the midpoint of coxa i.

Male: L, 611 μ ; W, 354 μ . On the venter, all plates except the anal fused together, the relative parts bearing setae as in the ♀. Anal plate longer and narrower than that of the ♀, and bearing 3 setae. Legs slender, with slender setae but no spines or spurs. Six segments in each leg. Tarsi very long and straight, each bearing a caruncle and 2 small claws. Chelicerae with a semicircle of small radiating setae around the base of the movable chela. Chelae without definite teeth.

Habitat: Port Moresby, Papua.



Figs. 11-14.—*Geneadolaelaps spencei*, n. sp. 11. Venter of female. 12. Chelae. 13. Tip of tarsus. 14. Venter of male.

The circumstances under which this mite was taken are of interest. The material consists of twenty-two adults and deutonymphs collected by Dr. Alan Spence and Mr. Frank H. Taylor at Port Moresby, Papua. They were first observed crawling "in dozens" on the legs of soldiers while standing on a bare clay surface outside one of the barracks. There is no record of any of the men having been bitten. The area where they occurred was "made ground", and the probability is that the mites were brought along in the clay from a nearby quarry in large numbers and that their presence on the men was entirely fortuitous.

Many of these specimens appear to be deutonymphs, since no genital apertures can be made out; but two contain an undifferentiated ovum and some are undoubtedly adult males.

Ewing's keys (1929) are the simplest and the most direct, and the writer has used them in determining the genus of these specimens.

Type in the collection of the School of Public Health and Tropical Medicine, University of Sydney. Paratypes in the South Australian Museum, the Australian Museum, and the British Museum.

References.

- BANKS, N., 1915.—*U.S. Dept. Agric. Rep.* 108, 79.
 VITZTHUM, H. G., 1929.—*Acari in "Die Tierwelt Mitteleuropas"*, iii (vii), 16.